

**The Boeing Company, Santa Susana Field Laboratory
(NPDES Permit No. CA0001309)**

**Limits Comparison Table 1
Outfalls 011, 018; Benchmarks (Note a) - Outfalls 001 and 002**

Constituent	Units (Note b)	Current Daily Maximum	Proposed Daily Maximum	Reason for Change (Basis for Limit)
Biochemical Oxygen Demand (BOD) (5-day @ 20°C)	milligram per liter (mg/L)	30	30	None
BOD (5-day @ 20°C)	pounds per day (lbs/day)	29,481	29,481	None
Oil and Grease	mg/L	15	15	None
Oil and Grease	lbs/day	14,741	14,741	None
pH	standard units	6.5 to 8.5	6.5 to 8.5 (Note c)	None
Total Suspended Solids (TSS)	mg/L	45	Remove limit	Dry-weather discharge prohibited
TSS	lbs/day	44,222	Remove limit	Dry-weather discharge prohibited
Barium, Total Recoverable (TR)	mg/L	1.0	1.0	None
Barium, TR	lbs/day	983	983	None
Chloride	mg/L	150	150	None
Chloride	lbs/day	147,405	147,405	None
Chlorine, TR	mg/L	0.1	0.1	None
Chlorine, TR	lbs/day	98.3	98.3	None
Chronic Toxicity (Note d)	Pass or Fail, % Effect (TST)	Pass or % Effect < 50	Pass or % Effect < 50	None
Fluoride	mg/L	1.6	1.6	None
Fluoride	lbs/day	1,572	1,572	None
Detergents (as MBAS)	mg/L	0.5	0.5	None
Detergents (as MBAS)	lbs/day	491.4	491.4	None
Iron	mg/L	0.3	Remove limit	Basin Plan
Iron	lbs/day	295	Remove limit	Basin Plan
Manganese	µg/L	50	Remove limit	Basin Plan
Manganese	lbs/day	49.1	Remove limit	Basin Plan
Ammonia – N	mg/L	10.1	10.1	None

Limits Comparison Table 1
Outfalls 011, 018; Benchmarks (Note a) - Outfalls 001 and 002

Constituent	Units (Note b)	Current Daily Maximum	Proposed Daily Maximum	Reason for Change (Basis for Limit)
Ammonia – N	lbs/day	9,925	9,925	None
Nitrate – N	mg/L	8	8	None
Nitrate – N	lbs/day	7,862	7,862	None
Nitrite – N	mg/L	1	1	None
Nitrite – N	lbs/day	983	983	None
Nitrate + Nitrite – N	mg/L	8	8	None
Nitrate + Nitrite – N	lbs/day	7,862	7,862	None
Perchlorate	µg/L	6.0	6.0	None
Perchlorate	lbs/day	5.9	5.9	None
Settleable Solids	mL/L	0.3	Remove limit	Dry-weather discharge prohibited
Sulfate	mg/L	300	300	None
Sulfate	lbs/day	294,810	294,810	None
Temperature	degrees Fahrenheit (°F)	86	80 (Note e)	Basin Plan
Total Dissolved Solids	mg/L	950	950	None
Total Dissolved Solids	lbs/day	933,565	933,565	None
Radioactivity – Gross Alpha (Note f)	Picocuries per liter (pCi/L)	15	15	None
Radioactivity – Gross Beta (Note f)	pCi/L	50	50	None
Combined Radium-226 & Radium-228 (Note f)	pCi/L	5.0	5.0	None
Tritium (Note f)	pCi/L	20,000	20,000	None
Strontium-90 (Note f)	pCi/L	8.0	8.0	None
Antimony, TR (Notes g and h)	micrograms per liter (µg/L)	6.0	6.0	None
Antimony, TR (Notes g and h)	lbs/day	5.9	5.9	None
Arsenic, TR (Notes g and h)	µg/L	10.0	10.0	None
Arsenic, TR (Notes g and h)	lbs/day	9.83	9.83	None

Limits Comparison Table 1
Outfalls 011, 018; Benchmarks (Note a) - Outfalls 001 and 002

Constituent	Units (Note b)	Current Daily Maximum	Proposed Daily Maximum	Reason for Change (Basis for Limit)
Beryllium, TR (Notes g and h)	µg/L	4.0	4.0	None
Beryllium, TR (Notes g and h)	lbs/day	3.93	3.93	None
Cadmium, TR (Note h)	µg/L	4.0 (dry weather) / 3.1 (wet weather)	3.1 (wet weather) (Note i)	Dry-weather discharge prohibited
Cadmium, TR (Note h)	lbs/day	3.93 (dry weather) / 3.05 (wet weather)	3.05 (wet weather)	Dry-weather discharge prohibited
Chromium (VI), (Notes g, h, and j)	µg/L	16	16	None
Chromium (VI), (Notes g, h, and j)	lbs/day	15.7	15.7	None
Copper, TR (Note h)	µg/L	14	67.5	TMDL
Copper, TR (Note h)	lbs/day	13.76	66.3	TMDL
Lead, TR (Note h)	µg/L	5.2	94	TMDL
Lead, TR (Note h)	lbs/day	5.11	92.4	TMDL
Mercury, TR (Notes g and h)	µg/L	0.1	0.1	None
Mercury, TR (Notes g and h)	lbs/day	0.1	0.1	None
Nickel, TR (Notes g and h)	µg/L	94	Remove limit	RPA
Nickel, TR (Notes g and h)	lbs/day	92.4	Remove limit	RPA
Selenium, TR	µg/L	8.2/5	Remove limits	Dry-weather discharge prohibited/TMDL
Selenium, TR	lbs/day	8.06/4.91	Remove limits	Dry-weather discharge prohibited/TMDL
Silver, TR (Notes g and h)	µg/L	4.1	4.1	None
Silver, TR (Notes g and h)	lbs/day	4.03	4.03	None

Limits Comparison Table 1
Outfalls 011, 018; Benchmarks (Note a) - Outfalls 001 and 002

Constituent	Units (Note b)	Current Daily Maximum	Proposed Daily Maximum	Reason for Change (Basis for Limit)
Thallium, TR (Notes g and h)	µg/L	2.0	2.0	None
Thallium, TR (Notes g and h)	lbs/day	1.97	1.97	None
Zinc, TR (Note h)	µg/L	119	159	TMDL
Zinc, TR (Note h)	lbs/day	117	156.25	TMDL
Cyanide	µg/L	8.5	8.5	None
Cyanide	lbs/day	8.4	8.4	None
TCDD Equivalents (Note k)	µg/L	2.8E-08	2.8E-08	None
TCDD Equivalents	lbs/day	2.75E-08	2.75E-08	None
1,2-Dichloroethane	µg/L	0.5	0.5	None
1,2-Dichloroethane	lbs/day	0.49	0.49	None
1,1-Dichloroethylene	µg/L	6.0	6.0	None
1,1-Dichloroethylene	lbs/day	5.9	5.9	None
Trichloroethylene	µg/L	5	5	None
Trichloroethylene	lbs/day	4.9	4.9	None
Pentachlorophenol	µg/L	16.5	16.5	None
Pentachlorophenol	lbs/day	16.22	16.22	None
2,4,6-Trichlorophenol	µg/L	13	13	None
2,4,6-Trichlorophenol	lbs/day	12.8	12.8	None
Bis(2-ethylhexyl)Phthalate	µg/L	4	4	None
Bis(2-ethylhexyl)Phthalate	lbs/day	3.93	3.93	None
2,4-Dinitrotoluene	µg/L	18	18	None
2,4-Dinitrotoluene	lbs/day	17.7	17.7	None
N-Nitrosodimethylamine	µg/L	16	16	None
N-Nitrosodimethylamine	lbs/day	15.72	15.72	None
alpha-BHC	µg/L	0.03	0.03	None
alpha-BHC	lbs/day	0.03	0.03	None

Footnotes for Table 1

- a. A “benchmark” is a water quality based effluent limit or a performance-based limit that is used to evaluate the performance of best management practices (BMPs) with regard to the removal of pollutants present in the discharge. In this Order, the benchmarks are established based on water quality-based effluent limitations for Discharge Points 001 and 002. Exceedance of a benchmark triggers an evaluation of the BMPs implemented at the site. The evaluation may determine that the BMPs require augmentation,

upgrading, or replacement. If so, the Discharger must develop a plan to implement the required upgrades and report to the Los Angeles Water Board within 60 days of the reported exceedance. The Discharger shall continue monitoring as directed in the Monitoring and Reporting Program during plan development and implementation.

- b. The mass-based effluent limitations are calculated using the maximum flow of 117.83 million gallons per day (MGD) for Outfalls 001, 002, 011, and 018 combined as follows:
Mass (lbs/day) = Flow (mgd) * 8.34 * concentration (mg/L).
- c. The effluent limitations for pH are 6.5 as an Instantaneous Minimum and 8.5 as an Instantaneous Maximum.
- d. The Maximum Daily Effluent Limitation (MDEL) shall be reported "Pass" or "Fail" and "% Effect". The Discharger shall conduct chronic toxicity monitoring as specified in the MRP. The Discharger demonstrates compliance with the chronic toxicity MDELs if the chronic toxicity testing result meets one of the following:
 - 1) The chronic toxicity testing result is "Pass"; or
 - 2) The percent effect is less than 50 if the chronic toxicity result is "Fail".
- e. The effluent limitation for temperature is 80°F based on the water quality objective in the Basin Plan for temperature that is applicable to inland surface waters with a WARM beneficial use designation. The applicable water quality objective (WQO) states: "For waters designated WARM, water temperature shall not be altered by more than 5 °F above the natural temperature. At no time shall these WARM-designated waters be raised above 80 °F as a result of waste discharges."
- f. Gross alpha and gross beta analysis must be performed. If gross alpha is >15 pCi/L, uranium analysis must be performed. Compliance with this Order shall then be based on comparing gross alpha minus total uranium to the gross alpha limit of 15 pCi/L. Radium-226 and radium-228 analysis must be performed, and combined Radium-226 and Ra-228 activity must be ≤ 5pCi/L. If gross alpha is <5 pCi/L, one can assume Ra-226 activity = gross alpha activity for purposes of meeting the 5 pCi/L limit. Gross Beta, Tritium, K-40, and Sr-90 analyses must be performed. Gross beta analysis must be ≤50 pCi/L. However, if gross beta is >50 pCi/L, compliance with this Order shall be based on comparing gross beta minus K-40 to the ≤50 pCi/L gross beta limitation. The gross beta limit is 50 pCi/L, after subtraction of K-40 activity. The K-40 is assumed to be all natural. The H-3 limit is 20,000 pCi/L, and the Sr-90 limit is 8 pCi/L. If gross beta >50 pCi/L (after subtracting K-40 activity) gamma isotopic analysis must be performed for Cs-137 (the most likely emitter associated with the site). The sum of the fractions technique must be used to demonstrate that the gamma emitters don't exceed 4 mrem/year (200 pCi/L for Cs-137). The sum of the fractions must include Tritium and Sr-90. If during the 12-month period, the average of the data exceeds the limit, then the Discharger is in violation of the limit.
- g. Concentrations correspond to a total hardness of 100 mg/L.
- h. Samples analyzed must be unfiltered samples.
- i. The wet-weather targets apply to days when the maximum daily flow in the Los Angeles River is equal to or greater than 500 cubic feet per second (cfs).
- j. The Discharger has the option to meet the hexavalent chromium limitations with a total chromium analysis. However, if the total chromium level exceeds the hexavalent chromium limitation, it will be considered a violation unless an analysis has been made for hexavalent chromium in a replicate sample and the result reported is within the hexavalent chromium limits.
- k. TCDD equivalents shall be calculated using the following formula, where the Minimum Levels (MLs), toxicity equivalency factors (TEFs), and bioaccumulation equivalency

factor (BEF) are as listed in the Table below. The Discharger shall report all measured values of individual congeners, including data qualifiers. When calculating TCDD equivalents, the Discharger shall set congener concentrations below the minimum levels to zero. U.S. EPA method 1613 may be used to analyze dioxin and furan congeners.

$$\text{Dioxin-TEQ (TCDD equivalents)} = \sum(C_x \times \text{TEF}_x \times \text{BEF}_x)$$

where: C_x = concentration of dioxin or furan congener x

TEF_x = TEF for congener x

BEF_x = BEF for congener x

Dioxin or Furan Congener	Minimum Level (pg/L)	Toxicity Equivalency Factor (TEF)	Bioaccumulation Equivalency Factor (BEF)
2,3,7,8-TCDD	10	1.0	1.0
1,2,3,7,8-PeCDD	50	1.0	0.9
1,2,3,4,7,8-HxCDD	50	0.1	0.3
1,2,3,6,7,8-HxCDD	50	0.1	0.1
1,2,3,7,8,9-HxCDD	50	0.1	0.1
1,2,3,4,6,7,8-HpCDD	50	0.01	0.05
OCDD	100	0.0001	0.01
2,3,7,8-TCDF	10	0.1	0.8
1,2,3,7,8-PeCDF	50	0.05	0.2
2,3,4,7,8-PeCDF	50	0.5	1.6
1,2,3,4,7,8-HxCDF	50	0.1	0.08
1,2,3,6,7,8-HxCDF	50	0.1	0.2
1,2,3,7,8,9-HxCDF	50	0.1	0.6
2,3,4,6,7,8-HxCDF	50	0.1	0.7
1,2,3,4,6,7,8-HpCDF	50	0.01	0.01
1,2,3,4,7,8,9-HpCDF	50	0.01	0.4
OCDF	100	0.0001	0.02

End of Footnotes for Table 1

Limits Comparison Table 2
Outfalls 003, 004, 005, 006, 007, 009, and 010

Constituent	Units (Note a)	Current Daily Maximum	Proposed Daily Maximum	Reason for Change (Basis for Limit)
Oil and grease	mg/L	15	15	None
Oil and grease	lbs/day	8,048	8,048	None
pH	standard units	6.5 to 8.5	6.5 to 8.5 (Note b)	None
Boron	mg/L	1.0	1.0	None
Boron	lbs/day	537	537	None
Chloride	mg/L	150	150	None
Chloride	lbs/day	80,477	80,477	None
Chronic Toxicity (Note c)	Pass or Fail, % Effect (TST)	Pass or % Effect < 50	Pass or % Effect < 50	None
Fluoride	mg/L	1.6	1.6	None
Fluoride	lbs/day	858	858	None
Nitrate + Nitrite - N	mg/L	10	10	None
Nitrate + Nitrite - N	lbs/day	5,365	5,365	None
Perchlorate	µg/L	6.0	6.0	None
Perchlorate	lbs/day	3.22	3.22	None
Sulfate	mg/L	250	250	None
Sulfate	lbs/day	134,128	134,128	None
Temperature	°F	86	80 (Note d)	Basin Plan
Total Dissolved Solids	mg/L	850	850	None
Total Dissolved Solids	lbs/day	456,034	456,034	None
Radioactivity – Gross Alpha (Note e)	pCi/L	15	15	None
Radioactivity – Gross Beta (Note e)	pCi/L	50	50	None
Combined Radium-226 & Radium-228 (Note e)	pCi/L	5.0	5.0	None
Tritium (Note e)	pCi/L	20,000	20,000	None
Strontium-90 (Note e)	pCi/L	8.0	8.0	None
Antimony, TR (Notes f and g)	µg/L	6.0	6.0	None
Antimony, TR (Notes f and g)	lbs/day	3.2	3.2	None
Cadmium, TR (Note g)	µg/L	4.0	4.0	None
Cadmium, TR (Note g)	lbs/day	2.1	2.1	None
Copper, TR (Note g)	µg/L	13	31	TMDL
Copper, TR (Note g)	lbs/day	7	16.6	TMDL

Limits Comparison Table 2
Outfalls 003, 004, 005, 006, 007, 009, and 010

Constituent	Units (Note a)	Current Daily Maximum	Proposed Daily Maximum	Reason for Change (Basis for Limit)
Lead, TR (Note g)	µg/L	5.2	5.2	None
Lead, TR (Note g)	lbs/day	2.8	2.8	None
Mercury, TR (Notes f and g)	µg/L	0.13	0.051	TMDL
Mercury, TR (Notes f and g)	lbs/day	0.07	0.027	TMDL
Nickel, TR (Notes f and g)	µg/L	86	958	TMDL
Nickel, TR (Notes f and g)	lbs/day	46.14	514.0	TMDL
Thallium, TR (Notes f and g)	µg/L	2	2	None
Thallium, TR (Notes f and g)	lbs/day	1.1	1.1	None
Zinc, TR (Note g)	µg/L	120	120	None
Zinc, TR (Note g)	lbs/day	64.4	64.4	None
Cyanide	µg/L	9.5	9.5	None
Cyanide	lbs/day	5.1	5.1	None
TCDD Equivalents (Note h)	µg/L	2.8E-08	2.8E-08	None
TCDD Equivalents (Note h)	lbs/day	1.5E-08	1.5E-08	None

Footnotes for Table 2

- a. The mass-based effluent limitations are calculated using the maximum flow for Outfalls 003, 004, 005, 006, 007, 009, and 010, which is 64.33 MGD, as follows:

$$\text{Flow (MGD)} \times \text{Concentration (mg/L)} \times 8.34 \text{ (conversion factor)} = \text{lbs/day.}$$
- b. The effluent limitations for pH are 6.5 as an Instantaneous Minimum and 8.5 as an Instantaneous Maximum.
- c. The MDEL shall be reported "Pass" or "Fail" and "% Effect". The Discharger shall conduct chronic toxicity monitoring as specified in the MRP. The Discharger demonstrates compliance with the chronic toxicity MDELs if the chronic toxicity testing result meets one of the following:
 - 1) The chronic toxicity testing result is "Pass"; or
 - 2) The percent effect is less than 50 if the chronic toxicity result is "Fail".
- d. The effluent limitation for temperature is 80°F based on the water quality objective in the Basin Plan for temperature that is applicable to inland surface waters with a WARM beneficial use designation. The applicable WQO states: "For waters designated WARM, water temperature shall not be altered by more than 5 °F above

the natural temperature. At no time shall these WARM-designated waters be raised above 80 °F as a result of waste discharges.”

- e. Gross alpha and gross beta analysis must be performed. If gross alpha is >15 pCi/L, uranium analysis must be performed. Compliance with this Order shall then be based on comparing gross alpha minus total uranium to the gross alpha limit of 15 pCi/L. Radium-226 and radium-228 analysis must be performed, and combined Radium-226 and Ra-228 activity must be ≤ 5pCi/L. If gross alpha is <5 pCi/L, one can assume Ra-226 activity = gross alpha activity for purposes of meeting the 5 pCi/L limit. Gross Beta, Tritium, K-40, and Sr-90 analyses must be performed. Gross beta analysis must be ≤50 pCi/L. However, if gross beta is >50 pCi/L, compliance with this Order shall be based on comparing gross beta minus K-40 to the ≤50 pCi/L gross beta limitation. The gross beta limit is 50 pCi/L, after subtraction of K-40 activity. The K-40 is assumed to be all natural. The H-3 limit is 20,000 pCi/L, and the Sr-90 limit is 8 pCi/L. If gross beta >50 pCi/L (after subtracting K-40 activity) gamma isotopic analysis must be performed for Cs-137 (the most likely emitter associated with the site). The sum of the fractions technique must be used to demonstrate that the gamma emitters don't exceed 4 mrem/year (200 pCi/L for Cs-137). The sum of the fractions must include Tritium and Sr-90. If during the 12-month period, the average of the data exceeds the limit, then the Discharger is in violation of the limit.
- f. Concentrations correspond to a total hardness of 100 mg/L.
- g. Samples analyzed must be unfiltered samples.
- h. TCDD equivalents shall be calculated using the following formula, where the MLs, TEFs, and BEF are as listed in the Table below. The Discharger shall report all measured values of individual congeners, including data qualifiers. When calculating TCDD equivalents, the Discharger shall set congener concentrations below the minimum levels to zero. U.S. EPA method 1613 may be used to analyze dioxin and furan congeners.

$$\text{Dioxin-TEQ (TCDD equivalents)} = \sum(C_x \times \text{TEF}_x \times \text{BEF}_x)$$

where: C_x = concentration of dioxin or furan congener x
 TEF_x = TEF for congener x
 BEF_x = BEF for congener x

Dioxin or Furan Congener	Minimum Level (pg/L)	Toxicity Equivalency Factor (TEF)	Bioaccumulation Equivalency Factor (BEF)
2,3,7,8-TCDD	10	1.0	1.0
1,2,3,7,8-PeCDD	50	1.0	0.9
1,2,3,4,7,8-HxCDD	50	0.1	0.3
1,2,3,6,7,8-HxCDD	50	0.1	0.1
1,2,3,7,8,9-HxCDD	50	0.1	0.1
1,2,3,4,6,7,8-HpCDD	50	0.01	0.05
OCDD	100	0.0001	0.01
2,3,7,8-TCDF	10	0.1	0.8
1,2,3,7,8-PeCDF	50	0.05	0.2
2,3,4,7,8-PeCDF	50	0.5	1.6

Dioxin or Furan Congener	Minimum Level (pg/L)	Toxicity Equivalency Factor (TEF)	Bioaccumulation Equivalency Factor (BEF)
1,2,3,4,7,8-HxCDF	50	0.1	0.08
1,2,3,6,7,8-HxCDF	50	0.1	0.2
1,2,3,7,8,9-HxCDF	50	0.1	0.6
2,3,4,6,7,8-HxCDF	50	0.1	0.7
1,2,3,4,6,7,8-HpCDF	50	0.01	0.01
1,2,3,4,7,8,9-HpCDF	50	0.01	0.4
OCDF	100	0.0001	0.02

End of Footnotes for Table 2

**Limits Comparison Table 3
Outfall 008**

Constituent	Units (Note a)	Current Daily Maximum	Proposed Daily Maximum	Reason for Change (Basis for Limit)
Oil and Grease	mg/L	15	15	None
Oil and Grease	lbs/day	902	902	None
pH	standard units	6.5 to 8.5	6.5 to 8.5 (Note b)	None
Boron	mg/L	1.0	1.0	None
Boron	lbs/day	60	60	None
Chloride	mg/L	150	150	None
Chloride	lbs/day	9,020	9,020	None
Chronic Toxicity (Note c)	Pass or Fail, % Effect (TST)	Pass or % Effect < 50	Pass or % Effect < 50	None
Fluoride	mg/L	1.6	1.6	None
Fluoride	lbs/day	96.2	96.2	None
Ammonia – N	mg/L	10.1	10.1	None
Ammonia – N	lbs/day	607.3	607.3	None
Nitrate – N	mg/L	8	8	None
Nitrate – N	lbs/day	481	481	None
Nitrite – N	mg/L	1	1	None
Nitrite – N	lbs/day	60	60	None
Nitrate + Nitrite - N	mg/L	8	8	None
Nitrate + Nitrite - N	lbs/day	481	481	None
Perchlorate	µg/L	6.0	6.0	None
Perchlorate	lbs/day	0.36	0.36	None
Sulfate	mg/L	300	300	None
Sulfate	lbs/day	18,039	18,039	None
Temperature	°F	86	80 (Note d)	None
Total Dissolved Solids	mg/L	950	950	None
Total Dissolved Solids	lbs/day	57,124	57,124	None
Radioactivity – Gross Alpha (Note e)	pCi/L	15	15	None
Radioactivity – Gross Beta (Note e)	pCi/L	50	50	None
Combined Radium-226 & Radium-228 (Note e)	pCi/L	5.0	5.0	None
Tritium (Note e)	pCi/L	20,000	20,000	None
Strontium-90 (Note e)	pCi/L	8.0	8.0	None
Antimony, TR	µg/L	6.0	Remove limit	RPA

**Limits Comparison Table 3
Outfall 008**

Constituent	Units (Note a)	Current Daily Maximum	Proposed Daily Maximum	Reason for Change (Basis for Limit)
Antimony, TR	lbs/day	0.36	Remove limit	RPA
Cadmium, TR (Note f)	µg/L	4.0/3.1	3.1 (Note g)	Dry-weather discharge prohibited
Cadmium, TR (Note f)	lbs/day	0.24/0.19	0.19	Dry-weather discharge prohibited
Copper, TR (Note f)	µg/L	14	67.5	TMDL
Copper, TR (Note f)	lbs/day	0.84	4.1	TMDL
Lead, TR (Note f)	µg/L	5.2	94	TMDL
Lead, TR (Note f)	lbs/day	0.31	5.7	TMDL
Mercury, TR	µg/L	0.13	Remove limit	RPA
Mercury, TR	lbs/day	0.008	Remove limit	RPA
Nickel, TR	µg/L	86	Remove limit	RPA
Nickel, TR	lbs/day	5.2	Remove limit	RPA
Selenium, TR	µg/L	5	Remove limit	Dry-weather discharge prohibited
Selenium, TR	lbs/day	0.3	Remove limit	Dry-weather discharge prohibited
Thallium, TR	µg/L	2.0	Remove limit	RPA
Thallium, TR	lbs/day	0.12	Remove limit	RPA
Zinc, TR (Note f)	µg/L	120	159	TMDL
Zinc, TR (Note f)	lbs/day	7.22	9.6	TMDL
Cyanide	µg/L	9.5	9.5	None
Cyanide	lbs/day	0.57	0.57	None
TCDD Equivalent (Note h)	µg/L	2.8E-08	2.8E-08	None
TCDD Equivalent (Note h)	lbs/day	1.7E-09	1.7E-09	None

Footnotes for Table 3

- a. The mass-based effluent limitations are calculated using the maximum flow for Outfall 008, which is 7.21 MGD, as follows:

$$\text{Flow (MGD)} \times \text{Concentration (mg/L)} \times 8.34 \text{ (conversion factor)} = \text{lbs/day.}$$

- b. The effluent limitations for pH are 6.5 as an Instantaneous Minimum and 8.5 as an Instantaneous Maximum.

- c. The MDEL shall be reported “Pass” or “Fail” and “% Effect”. The Discharger shall conduct chronic toxicity monitoring as specified in the MRP. The Discharger demonstrates compliance with the chronic toxicity MDELs if the chronic toxicity testing result meets one of the following:
- 1) The chronic toxicity testing result is “Pass”; or
 - 2) The percent effect is less than 50 if the chronic toxicity result is “Fail”.
- d. The effluent limitation for temperature is 80°F based on the water quality objective in the Basin Plan for temperature that is applicable to inland surface waters with a WARM beneficial use designation. The applicable WQO states: “For waters designated WARM, water temperature shall not be altered by more than 5 °F above the natural temperature. At no time shall these WARM-designated waters be raised above 80 °F as a result of waste discharges.”
- e. Gross alpha and gross beta analysis must be performed. If gross alpha is >15 pCi/L, uranium analysis must be performed. Compliance with this Order shall then be based on comparing gross alpha minus total uranium to the gross alpha limit of 15 pCi/L. Radium-226 and radium-228 analysis must be performed, and combined Radium-226 and Ra-228 activity must be ≤ 5pCi/L. If gross alpha is <5 pCi/L, one can assume Ra-226 activity = gross alpha activity for purposes of meeting the 5 pCi/L limit. Gross Beta, Tritium, K-40, and Sr-90 analyses must be performed. Gross beta analysis must be ≤50 pCi/L. However, if gross beta is >50 pCi/L, compliance with this Order shall be based on comparing gross beta minus K-40 to the ≤50 pCi/L gross beta limitation. The gross beta limit is 50 pCi/L, after subtraction of K-40 activity. The K-40 is assumed to be all natural. The H-3 limit is 20,000 pCi/L, and the Sr-90 limit is 8 pCi/L. If gross beta >50 pCi/L (after subtracting K-40 activity) gamma isotopic analysis must be performed for Cs-137 (the most likely emitter associated with the site). The sum of the fractions technique must be used to demonstrate that the gamma emitters don’t exceed 4 mrem/year (200 pCi/L for Cs-137). The sum of the fractions must include Tritium and Sr-90. If during the 12-month period, the average of the data exceeds the limit, then the Discharger is in violation of the limit.
- f. Samples analyzed must be unfiltered samples.
- g. The wet-weather targets apply to days when the maximum daily flow in the Los Angeles River is equal to or greater than 500 cubic feet per second (cfs).
- h. TCDD equivalents shall be calculated using the following formula, where the minimum levels, TEFs, and BEFs are as listed in the Table below. The Discharger shall report all measured values of individual congeners, including data qualifiers. When calculating TCDD equivalents, the Discharger shall set congener concentrations below the minimum level to zero. U.S. EPA method 1613 may be used to analyze dioxin and furan congeners.

$$\text{Dioxin-TEQ (TCDD equivalents)} = \sum(C_x \times \text{TEF}_x \times \text{BEF})$$

where: C_x = concentration of dioxin or furan congener x
 TEF_x = TEF for congener x
 BEF_x = BEF for congener x

Dioxin or Furan Congener	Minimum Level (pg/L)	Toxicity Equivalency Factor (TEF)	Bioaccumulation Equivalency Factor (BEF)
2,3,7,8-TCDD	10	1.0	1.0
1,2,3,7,8-PeCDD	50	1.0	0.9

Dioxin or Furan Congener	Minimum Level (pg/L)	Toxicity Equivalency Factor (TEF)	Bioaccumulation Equivalency Factor (BEF)
1,2,3,4,7,8-HxCDD	50	0.1	0.3
1,2,3,6,7,8-HxCDD	50	0.1	0.1
1,2,3,7,8,9-HxCDD	50	0.1	0.1
1,2,3,4,6,7,8-HpCDD	50	0.01	0.05
OCDD	100	0.0001	0.01
2,3,7,8-TCDF	10	0.1	0.8
1,2,3,7,8-PeCDF	50	0.05	0.2
2,3,4,7,8-PeCDF	50	0.5	1.6
1,2,3,4,7,8-HxCDF	50	0.1	0.08
1,2,3,6,7,8-HxCDF	50	0.1	0.2
1,2,3,7,8,9-HxCDF	50	0.1	0.6
2,3,4,6,7,8-HxCDF	50	0.1	0.7
1,2,3,4,6,7,8-HpCDF	50	0.01	0.01
1,2,3,4,7,8,9-HpCDF	50	0.01	0.4
OCDF	100	0.0001	0.02

End of Footnotes for Table 3